Vision

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The U.S. Department of Health and Human Services, National Center for Health Statistics' 2002 *National Health Interview Survey* revealed that 1.3 million Americans are legally blind. According to the Wisconsin Division for Vocational Rehabilitation (www.dhfs.state.wi.us/blind/), the definition of legal blindness is that central vision acuity does not exceed 20/200 in the better eye with a correcting lens, or a visual field that subtends an angle no greater than 20 degrees. It is a frequent misconception that people who are legally blind have no vision. Of the 1.3 million Americans who are legally blind, 80 percent have some useful vision, 10 percent can only see light, and 10 percent see nothing.

According to another report, by the National Eye Institute (Shoemaker et al. 2002), 2.85 percent of the U.S. population has severe vision impairment, including blindness. The National Eye Institute estimates that Wisconsin's rate of severe vision impairment is above the national average, at 3.14 percent. This means that there are about 73,168 Wisconsin residents with severe vision impairments, including 22, 877 who are blind. However, the Bureau for the Blind, Wisconsin Department of Health and Family Services (2002), estimates that 128,000 people over the age of 55 in Wisconsin have a severe vision impairment.

The Web page for the American Foundation for the Blind (www.afb.org/info_document_viewasp?documentid=1367) estimates that approximately 80 percent of Americans who have significant visual impairments are European American, 18 percent are African American, and 2 percent are other races. Eight percent are Hispanic, but race is not identified. In 1992 African Americans made up only 12 percent of the general population but 18 percent of the blind population, in part a result of the higher rates of poverty for African Americans. They experience a disproportionate lack of access to quality health care, health insurance, preventive health measures, and the medication and procedures that would lessen the impact of their vision problems.

According to the National Eye Institute, approximately 45 percent of individuals with severe visual impairments have a high school diploma, compared with 80 percent of fully sighted individuals. In addition, 62 percent of the people who have severe vision disabilities and who are white completed high school, compared with 41 percent of those who are African American and 44 percent of those who are Hispanic. The percentage of people who are blind who go on to college is about the same as sighted individuals, but people with severe vision disabilities are less likely to graduate from college.

As people age, their risk of vision impairment increases; thus more seniors are affected than young people. More than 1 million Americans aged 40 and older are blind, and another 2.4 million have a significant visual impairment. These numbers are expected to double over the next 30 years as the population ages. In 2002 Lighthouse International, Inc. initiated a public information campaign to help people understand that although "changes in vision" are a normal part of aging, "vision loss" is not. The organization wants to help inform senior citizens that there are many ways to prevent blindness and to improve vision. Its goal is to raise seniors' expectations that they will be able to see when they get older, that there are many things that can be done medically to improve vision, and that seniors are entitled to a life that includes vision.

Causes of Blindness

The major causes of blindness in the United States are diabetic retinopathy, age-related macular degeneration, cataracts, glaucoma, accident, and stroke.

Diabetic retinopathy, the leading cause of blindness in the United States, causes the blood vessels to leak fluid into the retina. Approximately 40 percent of people with diabetes have at least mild retinopathy. Hispanics, African Americans, and Native Americans have a higher incident of diabetes and thus are at higher risk than European Americans. Common signs are

- blurred or hazy vision, making reading difficult,
- increased sensitivity to bright light and glare, and
- faulty color vision.

Age-related macular degeneration (AMD) is the leading cause of vision loss among older Americans. One in 20 seniors is affected. It results in blurred or distorted central vision or a central blind spot. It does not affect peripheral vision. There are two types of macular degeneration: dry (atrophic) and wet (hemorrhagic). Laser surgery can slow the rate of vision loss from macular degeneration. Recent medical research indicates a cure for one form of macular degeneration may be near. It is most prevalent in European American populations. The number of people affected is expected to exceed 6.3 million as the population ages. Typical problems include difficulty

- recognizing faces and colors,
- driving a car,
- reading print, and
- doing close handwork such as sewing and other handicrafts.

Cataracts are cloudy areas in part, or all, of the eye lens. As the lens ages, the center or nucleus turns yellow and loses its ability to focus for close work. Approximately 50 percent of Americans between the ages of 65 and 74 have cataracts, and 70 percent of people over the age of 75 have cataracts. Typical problems include the following:

- Difficulty seeing in poorly lit environments because of the decrease in contrast sensitivity.
- Increased sensitivity to light and glare caused by reflection from metal, pavement. or fluorescent ceiling lights.
- Print often looks hazy and the contrast is not distinct. It appears faded and is difficult to read in dim light.
- Distant vision can be blurred, especially outdoors.
- Sunglasses may seem to reduce vision and may cause “ghost images” or seeing double.
- Colors appear faded or changed in hue—blue may seem green, white may appear gray or beige, and yellow may appear white.

Glaucoma, a buildup of excess fluid, causes an elevation of pressure inside the eye that damages the optic nerve. It affects more than 3 million people. People at highest risk are over age 60, African Americans over the age of 40, and people with a family history of glaucoma. It is the leading cause of blindness for African Americans and the third leading cause of legal blindness for European Americans. The first problems associated with glaucoma are with peripheral vision. The congenital form affects young people, the secondary form is the result of injury or trauma, and the acute and closed angle forms are most frequently associated with aging.

Accidents and strokes account for the majority of other incidents of blindness.

Related Issues

Shortage of Mobility and Orientation Training

Adults who become blind or who lose significant vision later in life must try to maintain and learn new independent living skills such as walking safely, dialing a phone, identifying medications, and managing their checkbook. They may have difficulty finding suitable employment. The simple processes of communicating in print in daily life can become difficult. Being able to read is reported as one of the biggest issues for many people who lose their vision later in life.

Several of the interviews indicated that there is a shortage of mobility and orientation training in Wisconsin. The Wisconsin Council of the Blind estimates that only about 1 percent of the population over 45 who are blind or have severe vision impairment in the United States receive appropriate rehabilitative services. There is not enough funding to train the number of people who need it. Some training is provided by the state Bureau for the Blind, but the case loads are as high as 50 or 60 people per trainer, and there are only 14.8 full-time professional staff and 15 paraprofessionals covering the entire state. Much of the training is left to nonprofit groups such as the Wisconsin Council of the Blind, which must raise its own funds. Other agencies provide general training in independent living skills, but their staff are not usually certified in mobility training.

Transportation and Travel Issues

Transportation is also a major issue for people who are blind and is a special challenge in rural areas. As one interviewee put it, "You can be ready and able to go somewhere, but you are always at the mercy of someone else. If they aren't there or can't come, you can't go anywhere." Public transportation can be used, but it does not exist in many communities. Some communities have a special transit system for people with disabilities that will pick people up and drop them at an exact address, but it is not very flexible and is often available only at certain times of the day.

Trying to keep up with what is happening and changing in their community and the world around them is difficult for people with severe vision disabilities or blindness. They cannot pick up general information by scanning the newspaper or seeing things as they ride along in a bus or car. They may have a memory of how things are and where they are located, but they do not have the usual ways to add to that information when something changes—stores close, new ones open, clinics move.

Assistive Devices and Dogs

Many people who have severe vision disabilities use assistive equipment and animals. The Wisconsin Council of the Blind estimates that about 4 percent of the state's population of people who are blind use braille, which is about 400 to 500 people. The American Foundation for the Blind's Web page (www.afb.org/info_document_viewasp?documentid=1367) indicates that in the United States as a whole, 109,000 people use white canes; in 1990 nearly two-thirds of these users were under the age of 65. This data may indicate that seniors who become blind are not routinely taught basic mobility skills. In 1993 7,000 people in the United States who were blind used dog guides. In addition, 1.5 million blind and visually impaired people use computers, and many have adaptive equipment on their computers.

Parents of Children Who Are Blind

Parents of children who are blind or have severe vision loss often need information and resources for locating appropriate assistance for their children. The DPI reports that there were 453 students in Wisconsin public schools who were blind or had significant vision disabilities in the 2001–2002 school year, and 5 children who were both blind and deaf. In addition, 72 children attend the Wisconsin School for the Visually Impaired in Janesville, which is administered by the DPI. In Wisconsin 314 people who use braille are registered with the Wisconsin Library for the Blind and Physically Handicapped; 79 are children. About one thousand children are registered users of the service.

The Wisconsin School for the Visually Handicapped and the Wisconsin Center for the Blind and Visually Handicapped, located together in Janesville, offer services for students, their teachers and parents, and adults who have severe visual impairments. The school provides a residential program for the children enrolled full time; other students attend part time. The Wisconsin Center for the Blind and Visually Handicapped offers support, braille, and large-print text books and training for Cooperative Educational Service Agency (CESA) districts and for classroom teachers who work with children who are blind or visually impaired. It also is a resource for parents and other professionals working with children with severe visual impairments. The center offers mobility training during the summer for adults who are blind.

Results of the Survey of Library Services to Adults with Special Needs

Special Needs Survey Questions on Vision

Question	Number of Libraries Responding Yes	Percentage
• Library provides remote access to its catalog.	176	60%
• Library has hand magnifiers.	170	58%
• Library has added materials in past three years on subjects related to vision loss and blindness.	143	49%
• Home delivery is available for people with limited vision.	104	35%
• Library has a brochure that describes special services for people with limited vision or who are blind.	88	30%
• Library has a machine, other than a computer, that scans and enlarges text.	68	23%
• Library staff attended training in the past three years on services for people with limited vision or who are blind.	57	19%
• Library owns descriptive videos.	51	17%
• Library has at least one periodical or newsletter intended for people with vision disabilities.	38	13%
• Library Web page has links to resources for people with limited vision or who are blind.	29	10%
• In the past three years, the library has had a planning process that included people with a vision loss or who were blind, their family members, or agency advocates.	23	8%
• Service brochures are available in large print or nonprint.	19	6%
• Card applications and other forms are available in large-print or nonprint format.	16	5%
• Library has a bright light that can be moved around in the library to improve reading light.	15	5%
• Program flyers are printed in large print.	11	4%
• Meeting notices are printed in large print.	2	1%
• Annual reports are available in large-print or nonprint format.	3	1%
• Library newsletters are available in large-print or nonprint format.	1	0%

Note: In 2002, 293 of Wisconsin's 380 public libraries completed the survey, a 77 percent response rate. See chapter 12 for the complete survey and a summary of the results.

Barriers to Service

Interviewees frequently mentioned transportation to and from the library as a barrier to public library use. Availability of parking and prompt snow removal were also cited as general travel problems for people with vision loss.

Self-image and self-confidence are two important considerations for people with severe vision loss or blindness. Adults who lose their vision must first often accept themselves as people who are blind, which is difficult. They may feel self-conscious and think everyone is looking at them. They may be frustrated by their struggles with daily living. When they ask questions or ask for assistance and someone responds, "What's the matter, can't you read?" it really sets them back. They must gain confidence and skills to travel independently as people who are blind, and they may hesitate to go to a public place like a library.

The lack of understanding some people experience when they go to a public place can deter them from coming a second time. They often do not have the confidence to ask for help in making the world around them more comfortable. When a person who is struggling with self-identity encounters disrespect or indifference, they likely will not come back. Rude, unhelpful, and unfriendly or even indifferent staff are barriers to public library use.

One patron reported that she needed to enlarge a page so she could see it and asked for assistance with the copier. She was told where the copier was, but when she couldn't read the directions because the print was too small for her to see, she was told the staff could not assist her because copier use was "self-service."

Another barrier to public library use is unfamiliarity with the range of available library services. People who have a severe vision loss may be unaware of what the library has to offer. They may assume the library only has print resources. They may depend on the Wisconsin Regional Library for the Blind and Physically Handicapped to meet their needs and not know that the local public library has music CDs and tapes, recorded books, and described videos.

Some people with vision impairments may not go to public libraries because they are afraid they will not be able to find the materials they need. They may think they cannot access materials easily because they have to use a computer catalog, and many people who are blind or have severe vision problems do not know how to use a computer. The lack of accessible workstations is another barrier to public library use. People who have vision impairments and who actively use computers may be accustomed to highly sophisticated adaptive tools. They may need specialized software and hardware to read the screen, to print materials, and to scan and read print documents.

Planning and Collaboration

Public librarians will find many state agencies willing to recruit their members to help with a planning process. During the interviews, several agencies offered to assist public libraries in identifying people around the state who could serve on planning committees. Most agencies that serve people who are blind have newsletters and may be willing to include library information in them for specific areas. Try the following:

- Badger Association of the Blind
- Bureau for the Blind, Wisconsin Department of Health and Family Services
- Wisconsin Council of the Blind
- Wisconsin Center for Deaf-Blind Persons

One planning suggestion was to include the chairs or presidents of regional chapters of the Badger Association of the Blind support groups, or those for the Wisconsin Council of the Blind. Often, people are

eager to get out and do things, so they may be receptive to attending meetings and helping out with planning. Additional assistance might come from the following:

- Special Education Department staff at Department of Public Instruction.
- Family members of people who are blind or deaf-blind.
- National Federation of the Blind–Wisconsin (NFBW). Wisconsin is fortunate to have Dan Wenzel as a representative on the national board. Wenzel can be reached at the Wisconsin Center for the Blind and Visually Impaired, where he is a regional support specialist.
- Wisconsin Center for the Blind and Visually Impaired.
- Volunteer braillist and tapist organizations in Madison and Milwaukee.
- Wisconsin Regional Library for the Blind and Physically Handicapped.
- Agencies serving seniors.

Staff Training

The interviews revealed a significant need for librarians trained in communication skills with people who are blind or who have severe vision loss. Good communication begins with treating all people with courtesy and dignity. Greet people as soon as they enter the building. Librarians can introduce themselves and explain who they are and their availability to help if needed. Before attempting to help people with a vision disability, ask them if they want or need assistance. Explain what is happening as the process evolves. Librarians show respect by talking directly to the person, not to a companion. It is helpful if librarians stand where they can be seen or let the person know where they are located. It is best not to talk from behind the person. There is no need for librarians to raise their voices unless the person has a hearing problem. Be descriptive with responses. People who have severe vision loss appreciate it when librarians announce when they are leaving or going to another area.

The interviews suggested that training can sensitize library staff to what it is like to be blind and how people deal with daily challenges. There are basic techniques to use when guiding someone who has a vision loss. There is also basic etiquette involved in assisting someone who has a service animal. Meeting a person who is deaf and blind can be uncomfortable for those who have little experience with such interactions. Most people who are deaf-blind have either some vision or some hearing, or both. Try to determine which sense is the strongest.

A basic communication skill that requires simple training for people who have profound disabilities in both areas is to trace capital letters into the palm of the person's hand, one letter at a time. This is useful for people who do not use tactile sign language or for librarians who do not know how to use sign language at all. If the patron and librarian know finger spelling, that can be done in the palm of the hand. There is also a technique used to help seat people who are deaf-blind. These patrons are especially vulnerable in an emergency, so librarians should be aware of where they are in the building, ready to assist if necessary.

Interviewees stressed the need for librarians to be familiar with basic adaptive equipment, both low- and high-tech, used by many people who are blind or have severe visual impairments. For example, Book Worm, a new product about the size of a computer mouse, has a braille display. Text is downloaded into this device, read by it, and displayed tactily.

The following agencies can provide staff training for public librarians:

- Badger Association of the Blind
- Wisconsin Council of the Blind
- Bureau for the Blind, Wisconsin Department of Health and Family Services
- Wisconsin Regional Library for the Blind and Physically Handicapped

Collections and Services

A public library has many resources to offer adults who are blind or who have moderate to severe vision loss. A good current collection of books in large print is important to people who retain some vision. Arrange to have good lighting in the stacks housing the large-print books. It is also an excellent place to display flyers on the Regional Library for the Blind and Physically Handicapped. Music on CDs or tapes, recorded books—especially new titles—and described videos, in which the action is described when there is no dialogue, may all be of interest to people who cannot see well. Adults who are blind may be as interested in the library's community programs and activities for their children as any other community member.

One of the best services public libraries can offer people with limited vision is information about the Wisconsin Regional Library for the Blind and Physically Handicapped. The regional library was mentioned repeatedly in the interviews as the primary source for reading materials for people who are blind, who have severely limited vision, or who have disabilities that make it difficult or impossible to hold a book and turn the pages. A doctor's signature is required for people with reading disabilities to be certified as users of the service. People who are blind, visually impaired, or physically unable to hold a book may be certified by other professionals, such as teachers, librarians, nurses, and physical therapists. One interviewee commented, "The Library for the Blind is the best administered government program in the state."

Public librarians need to be knowledgeable about the regional library, promote it with signs in the library, tell individual patrons about the service, and have applications on hand to offer their patrons. Librarians can further promote the service by keeping a demonstration "talking book" machine and a recording or two at the library.

Wisconsin Regional Library for the Blind and Physically Handicapped

The Wisconsin Regional Library for the Blind and Physically Handicapped is a free library service administered by the National Library Services for the Blind and is part of the Library for the Blind and Physically Handicapped in the Library of Congress. The service provides books and magazines in braille and special audiorecording formats for children and adults. The regional library not only provides access to the materials but supplies the free machines needed to listen to the recordings as well. Materials are mailed postage free to users and are returned at no cost. Some adaptive equipment such as page turners are also provided.

In 2002, 10,319 people and 503 institutions used the services of the Wisconsin Regional Library. Of these, 10,095 of the users were adults, and 224 were children. In addition, 314 people who used the service used braille, 235 of whom were adults. Eighty percent of the people who used the regional library were over the age of 65. In addition to the people who used the service because of vision disabilities, 567 patrons had physical disabilities other than vision, and 1,334 users had reading or learning disabilities.

Users of the service may subscribe to *Newsline for the Blind,* which is a 24-hour toll-free telephone newspaper reading service accessible by touch tone phone. The *Chicago Tribune*, *New York Times,* and *Washington Post* are available, as are the *Wisconsin State Journal, Capital Times,* and *Milwaukee Journal Sentinel.*

The library has a limited collection of large-print periodicals, described videos, and resource material on blindness in various formats. The staff also creates bibliographies on subjects of interest to their patrons.

People who go to the Regional Library for the Blind and Physically Handicapped, located in the lower level of the downtown Milwaukee Public Library, can use equipment in-house, such as braille embossers and writers, a closed-circuit television to enlarge printed materials or images such as photographs, magnifiers, optical character readers, and computers with specialized enlarging software and speech output devices. The library also provides reference and reader's advisory services. The regional library publishes a quarterly newsletter for its users and would be an excellent place for public libraries to make their local services known to people who are blind and who have severe vision impairments.

By having a good selection of recorded books, public librarians can offer another important service to persons with vision impairments. Recordings of new books typically come out commercially long before they are recorded and made available by the Regional Library for the Blind and Physically Handicapped. By going to a public library for recorded books, someone who has a severe vision impairment can be reading books at the same time as their sighted friends. There are also periodicals of special interest to people who are blind or who have severe vision impairments. Some of these titles are included in the "Additional Resources" section at the end of this chapter.

One suggestion that came out of the interviews was for libraries to offer book clubs for people who do not read print or to make a special effort to invite people who use recorded books to participate in book discussions with sighted patrons.

All library Web pages should be created using universal design principles. Basic Web page accessibility-design instructions are readily available on the Internet. Library electronic catalogs should be designed to interface easily with screen-reading software so that people can access the catalog and resources from home.

Accessible Buildings and Services

Libraries can make life much easier and more comfortable for patrons who have severe vision impairments by adjusting the physical environment. Use of universal design can make public spaces more comfortable and functional for individuals who are blind or visually impaired, and for others as well. It does not require a great deal of time, energy, or money. Universal design in a building refers to features that address the needs of people with disabilities but have no negative impact on people who are able-bodied. The ideal time to use universal-design elements is when a new building or major remodeling project is being planned.

One example of universal design relates to lighting. Several important considerations involve color contrast and reduction of glare. Appropriate lighting is extremely important for people who have limited vision. Some people with severe vision impairments see best in natural light. Also consider the following:

- Replace all light bulbs in the library promptly.
- Bright lighting is not always better. Bright overhead lights, especially fluorescent ceiling lights, often create glare that worsens vision for some people.
- Brightness only helps if it is directed toward what people want to see and away from their eyes.
- Floor and table lamps with a good intense light and that can be moved around by patrons to other areas as needed are helpful.
- The Council of the Blind can make recommendations on specific types of lamps that have goosenecks and are highly adjustable.
- Seats near windows may be preferred.
- Window coverings that include adjustable blinds or sheer curtains or draperies are helpful because they allow light to be adjusted.
- People who have cataracts may need to reduce direct sunlight.

When designing a new building or selecting new furniture, work with an interior designer familiar with universal design concepts. If possible, do the following:

- Select upholstery with texture because it gives tactile clues for identification.
- Use brightly colored accessories such as vases or lamps to make the furniture easier to locate.
- Avoid floor coverings and upholstery with patterns. Stripes and checks can create visual confusion for people who do not see well.
- Place light or dark objects against contrasting backgrounds—for example, a dark table near a light wall.
- Use contrasting color on door handles and trim around the door frame to make the doorway easier to see.

General safety issues benefit all patrons. People who do not see well often stumble or trip easily. If the people are elderly, it compounds the problem and intensifies the safety concerns. Routine safety issues are often required by building code and include attention to the following:

- Replace worn carpeting and floor coverings.
- Tape down area rugs.
- Level walking surfaces are important, especially when the type of flooring changes from one area to another.
- Tape down or keep electrical cords out of pathways.
- Promptly dry waxed floors and wipe up water on floors that tend to be slick.
- Avoid protruding fixtures—including phone booths, drinking fountains, and fire extinguishers. They should be flush or inset into the walls.
- Hallways lighting should be consistent throughout the length of the hall.
- Chair railings can be installed in halls to help guide people.
- The edge of all steps and ramps should be marked with paint, tape, or surface edging of a contrasting color.
- Stairwells should be well lit, and stair railings should extend beyond the top and bottom steps. Landings should be marked with a contrasting color.
- Emergency exits should be clearly marked.

Librarians may want to consider adding or updating both low- and high-tech devices and equipment in the library:

- Install pay phones with large-print key pads and sound amplifiers.
- Provide handheld magnifiers.
- Provide writing and signature guides.
- Have high-contrast markers on hand.
- Consider purchasing a scanning and enlarging pen. It looks like a thick pen, with a screen on the side that enlarges text. It scans text as it is run over a section of text in small print and displays it in large print. This device is especially helpful to use with phone books and dictionaries and other reference tools that have very small print.

Many people who have low vision are older, and seniors may prefer simple equipment to a computer. One simple magnification tool is a closed-circuit television that magnifies and projects printed materials onto a television screen. This equipment is much simpler to use than a computer scanner, and it takes only moments to teach someone to operate. If patrons need to have text read rather than enlarged, they may be more comfortable with a stand-alone machine, such as a Kurzweil, than a computer screen reader. A Kurzweil is a machine that scans text much like a copier and then reads the text with a computerized voice. It is much simpler to operate than a computer.

La Crosse Public Library Has an Assistive Technology Lab

Using LSTA funding, the La Crosse Public Library developed an extensive collection of both high- and low-tech equipment and tools for people with disabilities. Some of the equipment is intended to address the needs of people who have low vision or who are blind. People may come in and try out a variety of equipment in a lab that houses the materials. The items include various types of hand and stand magnifiers, a closed-circuit television that enlarges text and images, and computer software programs that enlarge or read text, or both.

However, many people who have severe vision disabilities are sophisticated computer users. They often have specialized equipment and software on their home or work computers and find it useful if the same types of products are available at a public library. A 19-inch or larger monitor is helpful to make full use of the built-in enlarging features of most new computers. Large-size keyboards embossed in braille are also helpful. Staff at the Wisconsin Council of the Blind reported that the two most frequently used screen enlargers are ZoomText and Magic. The two most frequently used screen readers are JAWS and Window Eyes. Numerous other products are available.

Staff at both the DLTCL and the Regional Library for the Blind and Physically Handicapped can help direct librarians to appropriate adaptive technology products.

Marketing

When asked how librarians could best market directly to people who are blind, one interviewee responded, "Radio, definitely radio!" Several people who were interviewed advised using television ads. Other suggestions included putting information in the newsletter of the Regional Library for the Blind and Physically Handicapped, titled *The Bulletin Board.* Other agency newsletters that may be receptive to including information from their local libraries include the following:

- Independent living centers
- SHHH-Wisconsin
- Badger Association of the Blind
- Support groups affiliated with the Council of the Blind, the Bureau for the Blind, the Division of Vocational Rehabilitation, and the Councils on Aging
- Local nursing homes
- Senior meal sites
- Senior citizen centers
- Housing complexes for the elderly

Many of the interviewees suggested that librarians go to places where there are seniors because seniors have high incidents of vision impairments. Other suggestions included putting information on the library's Web page, which should use universal design, using e-mail, and creating an audiotape for inclusion with deliveries of materials from the Regional Library for the Blind and Physically Handicapped to targeted ZIP code addresses.

Southwest Library System Helps Create Special Needs Service Brochures

Library size is no barrier to offering services and materials for people who have severe vision impairments. Using LSTA funds, the Southwest Library System in Fennimore helped its many small rural libraries design and print brochures that highlight local resources and the materials the library can help patrons get through interlibrary loan.

Several different agencies recommended that librarians occasionally attend support group meetings of people who have vision impairments so attendees know who the librarian is and what the library has to offer. This would allow librarians to join in on the "kitchen table" discussion for the community of people with

vision impairments. They can also attend meetings of blindness organizations, such as the National Federation of the Blind-Wisconsin. Librarians may want to set up a display of materials and descriptions of services they offer for people who are blind or have severe vision impairments at meetings of the various agencies that provide vision and training services. Such displays could help make administrators and trainers aware that the library has more than books. Churches could include a library insert in their bulletins. Some churches are now hiring parish nurses, who could help their parishioners discover what the library has to offer. Home delivery services are often not well publicized, and these organizations can help get information on the service out to the people who most need it.

Librarians may want to routinely make brochures and other special information in large print and put statements on all printed documents that indicate alternate formats and accommodations are available. Bibliographies of large-print books and described videos would be good items to routinely create in large print.

To make printed material easier to read, keep these considerations in mind:

- Use the best-possible contrast for text.
- Many older people find white or yellow lettering on black easier to read than black lettering on white or yellow paper.
- Dark blues and greens for lettering can often be effective.
- People who have cataracts can best see bright primary colors with high contrast, such as large black print on white or light yellow paper.
- Using different-colored lettering for headings is hard for people with low vision to see.
- Use a minimum of a 16-point font, but 18 point is better, and a bold 18-point font is best.
- Select a typeface that has easily recognizable characters, such as roman or sans serif. Arial is a good choice for a font, as is Courier, which also provides wide and equal spacing between letters.
- Avoid decorative fonts, italics, and all capital letters.
- Use bold type when possible because the thick letters helps make the print more legible.
- Spacing between lines should be 1.5 rather than single spacing.
- When hand printing a sign, use a black felt-tip pen on white paper for highest contrast. Avoid using glossy paper because it causes glare.
- Signs should be placed at eye level.

Several of the people interviewed stressed the importance of in-house marketing. It is not enough to purchase adaptive equipment and wait for patrons to ask for it; few will ask. Often, family members see equipment and then bring in the person who has the vision problem to try out the equipment. To market the equipment to the people who need it, place both the signage and the adaptive equipment where it is visible to all patrons.

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Additional Resources

Periodicals

Braille Monitor. <www.nfb.org/publications.html>. The monthly publication of the National Federation of the Blind. It is available in braille, in print, on 8⅓ record, and on cassette.

Future Reflections. <www.nfb.org/publications.html>. Published by the National Federation of the Blind, this is a quarterly magazine for parents and educators of children who are blind.

Matilda Ziegler Magazine. <www.zieglermag.org>. A general-interest monthly publication that includes a variety of information on entertainment, reprinted articles from other magazines and newspapers, book excerpts, and short fiction. It is available in grade-2 braille and half-speed cassettes but is not available in large print.

Newsline for the Blind. A 24-hour toll-free telephone newspaper reading service accessible by touch-tone phone. The *Chicago Tribune, New York Times,* and *Washington Post* are available, as are the *Wisconsin State Journal, Capital Times,* and *Milwaukee Journal Sentinel.* The service is available through the Wisconsin Regional Library for the Blind and Physically Handicapped, 800-242-8822.

Reader's Digest. Available in large print. P.O. Box 241, Mt. Morris, IL 61054, 815-734-6963; or Reader's Digest Large Type Magazine, P.O. Box 3010, Harlan, IA.

Videos

American Foundation for the Blind. *The Seven Minute Lesson: Sight-Guided Techniques for Assisting People Who Are Blind or Visually Impaired.* 1978. 7 min. American Foundation for the Blind. Videocassette. ($29.95 from the American Foundation for the Blind, 11 Penn Plaza, Suite 300, New York, NY 10001; 800-232-5463 or 202-502-7600; <www.afb.org>.)

American Foundation for the Blind. *What Do You See When You See a Blind Person?* 2000. 16 min. American Foundation for the Blind. Videocassette. ($39.95 from the American Foundation for the Blind, 11 Penn Plaza, Suite 300, New York, NY 10001; 800-232-5463 or 202-502-7600; <www.afb.org>.)

University of Washington. *Working Together: Computers and People with Sensory Impairments.* 2000. 11 min. DO-IT, University of Washington. ($25 from University of Washington, DO-IT [Disabilities, Opportunities, Internet Working and Technology], P.O. Box 355670, Seattle, WA 98195-5670; 206-685-3648 [voice/TTY]; <www.washington.edu/doit/Video/wt_sensory.html>.)

National Organizations

American Council of the Blind (ACB). <www.acb.org>; 800-424-8666 or 202-467-5081; 1155 Fifteenth Street NW, Suite #720, Washington, DC 20005. A major source of information about blindness.

American Foundation for the Blind (AFB). <www.afb.org>; 800-232-5463 or 202-502-7600; 11 Penn Plaza, Suite 300, New York, NY 10001. Provides information on aids, appliances, employment, dog guides, and library services.
Region III Office. 800-232-5463 or 312-245-9961; 401 W. Michigan Avenue, Suite #308, Chicago, IL 60611.

American Library Association (ALA). <www.ala.org/ascla/awards.html>; 800-545-2433 or 312-944-6780; 50 E. Huron Street, Chicago, IL 60611. The Library Service to People with Visual and Physical Disabilities is a unit of the Association of Specialized and Cooperative Library Agencies (ASCLA). It sponsors the Francis Joseph Campbell Award given annually to a person who has made an outstanding contribution to the advancement of library services for people who are blind or physically handicapped. The ASCLA/National Organization on Disability Award is a $1,000 award and certificate for a library organization that has provided services for people with disabilities.

American Macular Degeneration Foundation. <www.macular.org>; 888-622-8527 or 413-268-7660; P.O. Box 515, Northampton, MA 01061-0515. Conducts research and provides educational information on macular degeneration.

Bobby, Center for Applied Special Technology. <bobby.watchfire.com/bobby/html/en/index.jsp>; 800-282-5951 or 781-810-1450; 200 West Street, Waltham, MA 02451. A comprehensive Web accessibility software tool designed to help identify and repair barriers to accessibility and encourage compliance with existing accessibility guidelines.

DVS Home Video. <www.wgbh.org/dvs>; 800-333-1203; P.O. Box 55742, Indianapolis, IN 46205. A source for videos that describe the action in a film when there is no dialogue.

EnableMart. <www.enablemart.com/products>; 888-640-1999; 400 Columbia Street, Suite 100, Vancouver, WA. 98660-3413. A source for the Reading Pen, which scans a line of text or words and enlarges them.

The Foundation Fighting Blindness. <www.blindness.org>; 800-683-5555 or 410-7851414; 800-683-5551 (TTY); 11350 McCormick Road, Hunt Valley, MD 21031-1014. Researches the cause, treatment, and prevention of retinitis pigmentosa, macular degeneration, Usher's syndrome, and other retinal degenerations.

The Glaucoma Foundation. <www.glaucomafoundation.org/info>; 800-452-8266 or 212-504-1901; 33 Maiden Lane, Seventh Floor; New York, NY 10038. A national nonprofit organization that funds and promotes research on glaucoma.

Glaucoma Research Foundation. <www.glaucoma.org>; 800-826-6693 or 415-986-3162; 490 Post Street, Suite 830, San Francisco, CA 94102. Funds research and education on glaucoma.

Hadley School for the Blind. <www.hadley-school.org>; 800-323-4238 or 847-446-9916; 700 Elm Street, P.O. Box 299, Winnetka, IL 60093-0299. Offers correspondence courses for people who are blind in vocational training, high school equivalency exams, technical computer subjects, and self-improvement courses. Courses are available in braille or audiocassette format. There are also courses for sighted parents of blind infants and children, and for professionals who work with people who are blind.

Helen Keller National Center for Deaf-Blind Youth and Adults. <www.helenkeller.org>; 516-944-08900; 516-944-8637 (TTY); 111 Middle Neck Road, Sands Point, NY 11050. A vocational rehabilitation training center that provides evaluation, training in vocational skills, adaptive and computer technology, orientation, and mobility.

Lighthouse International. <www.lighthouse.org>; 800-334-5497; 111 E. Fifty-ninth Street, New York, NY 10022. Provides vision rehabilitation services, education, research, prevention, and advocacy.

National Eye Institute (NEI). <www.nei.nih.gov>; 301-496-5248; 2020 Vision Place, Bethesda, MD 20892-3655. As one of the National Institutes of Health, NEI conducts and supports research that helps prevent and treat eye diseases and disorders.

National Federation of the Blind (NFB). <www.nfb.org>; 410-659-9314; 1800 Johnson Street, Baltimore, MD 21230. Provides advocacy services, information and referral, literature about blindness, scholarships, aids, and adaptive appliances. The NFB works with the U.S. Department of Labor on the Job Opportunities for the Blind program.

Prevent Blindness America. <www.preventblindness.org>; 800-221-3004 or 847-843-2020; 500 E. Remington Road, Schaumburg, IL 60173. Provides research, education, and service programs, as well as distribution of informational pamphlets.

Wisconsin Organizations

Badger Association of the Blind. <www.badgerassoc.org>; 414-258-9200; 912 N. Hawley Road, Milwaukee, WI 53213. A Milwaukee-based organization that operates a housing unit for adults who are blind, sells low-vision aids and appliances, and has an activity center for social and recreational activities.

Business Enterprise Program (BEP). <www.dwd.state.wi.us/dvr/bep.htm>; 800-442-3477 or 608-243-5630; 608-243-5601 (TTY); P.O. Box 7852, Madison, WI 53707-7852. As part of the Division of Vocational Rehabilitation, it assists people who are blind who want to establish a business.

Center for Blind and Visually Impaired Children, Inc. 414-355-3060; 5600 W. Brown Deer Road, Suite #4, Milwaukee, WI 53223-2346. Offers parents of children who are blind (age birth to five) early intervention services, orientation, mobility, various therapies, parent support groups, and informational meetings.

National Federation of the Blind-Wisconsin. <www.nfbwis.org>; 608-758-4800; 1420 W. State Street, Janesville, WI 53546. State chapter of the National Federation of the Blind.

Prevent Blindness-Wisconsin. <www.preventblindness.org>; 414-765-0505; 759 N. Milwaukee Street, Milwaukee, WI 53202. State chapter of Prevent Blindness America.

Volunteer Services for the Visually Handicapped. <www.vsvh.org>; 414-286-3039; 803 W. Wells Street, Milwaukee, WI 53233-1436. A volunteer-based agency dedicated to transcribing text into braille.

Volunteer Braillists and Tapists of Madison, Inc. <www.vbti.org>; 608-233-0222; 517 N. Segoe Road, Room #200, Madison, WI 53705. Transcribes print materials to braille or audiocassette. Has a small lending library of brailled trade books and large-print and brailled text books, and offers services to public libraries as well as individuals.

Wisconsin Center for Deaf-Blind Persons, Inc. 414-481-7477 (voice/TTY); 3195 S. Superior, Milwaukee, WI 53207. Provides rehabilitation services and training for adults who are both blind and deaf or have partial sight or hearing.

Wisconsin Center for the Blind and Visually Impaired. <www.wcbvi.k12.wi.us>; 800-832-9784 or 608-758-6100; 1700 W. State Street, Janesville, WI 53546. Located at the Wisconsin School for the Visually Handicapped in Janesville, the center provides services to CESAs, classroom teachers who have blind children in their classrooms, parents, and other individuals and organizations interested in services for people who have severe visual impairments. There are regional sites in West Allis, Portage, Oshkosh, and Turtle Lake.

Wisconsin Council of the Blind. <www.wcblind.org>; 800-783-5213 or 608-255-1166; 754 Williamson Street, Madison, WI 53703-3115. Offers programs in rehabilitation, low-vision assessment, orientation, mobility instruction, scholarships for technical school and college students, free white canes, eye research grants, and low-interest home loans for people who are blind.

Wisconsin Department of Health and Family Services, Bureau for the Blind. <www.dhfs.state.wi.us/blind/>; 888-879-0017 or 608-266-3109; 1 W. Wilson Street, Madison, WI 53703. Offers rehabilitation services to people who are blind or visually impaired to help them remain in their homes. Rehabilitation specialists visit people and provide training in daily living skills, household management, personal care, and communications. There are 14 regional offices in Appleton, Eau Claire, Green Bay, La Crosse, several in Madison and Milwaukee, Rhinelander, Sheboygan, Superior, Waukesha, and Wausau.

Support groups for persons who are visually impaired. <www.dhfs.state.wi.us/blind/VisuallyImpdSupport.htm>.

List of agencies that provide dog guides. <www.dhfs.state.wi.us/blind/DogGuides.htm>.

List of Wisconsin assistive technology dealers. <www.dhfs.state.wi.us/blind/AssistiveTechnology.htm>.

List of companies that provide adaptive equipment. <www.dhfs.state.wi.us/blind/AdaptiveEquipment.htm>.

Wisconsin Department of Public Instruction, Division of Learning Support: Equity and Advocacy. <www.dpi.state.wi.us/index.html>; 800-441-4563 or 608-266-3522; 125 S. Webster Street, P.O. Box 7841, Madison, WI 53707. Manages vision-related programs in local educational agencies, Cooperative Educational Service Agencies (CESA), and the Wisconsin Center for the Blind and Visually Impaired.

DPI, Education Consultant in the Area of Blindness and Visual Impairments. <www.dpi.state.wi.us/index.html>; 800-441-4563; 125 S. Webster Street, P.O. Box 7841, Madison, WI 53707. This consultant works primarily with the local CESA programs to provide local school districts support for students who are blind or have visual disabilities.

Wisconsin Regional Library for the Blind and Physically Handicapped. <www.dpi.state.wi.us/dpi/dltcl/rll/lbphinfo.html>; 800-242-8822 or 414-286-3045; 813 W. Wells Street, Milwaukee, WI 53233-1404. Affiliated with the National Library for the Blind and Physically Handicapped in the Library of Congress, this library sends braille materials, recorded books players, descriptive videos, and adaptive tools and special equipment by mail to people registered to receive its services.

Wisconsin School for the Visually Impaired (WSVH) and Center for the Blind and Visually Handicapped. <www.wcbvi.k12.wi.us/wsvh/wsvh.htm>; 800-832-9784 or 608-758-6100; 1700 W. State Street, Janesville, WI 53546. A residential school for students who have severe visual impairments. It offers K–12 education, extracurricular activities, meals and housing, and the latest in adapted technology to its participants.

All Web pages listed here were last accessed in November 2002.

Getting Started with Little Money and Time: Vision

The following are some ideas for public libraries to use when designing services for people with vision problems.

Breaking Down Barriers

- Greet everyone who comes into the library as they enter the door.

Accessible Buildings and Services

- If a patron who uses a white cane or has a service dog enters the library, the librarian should greet them, make an introduction, and ask them to let the staff know if they need any assistance.
- Use a computer or copier to enlarge the text of the library's service brochures and card application form, and offer them to people who seem to have a hard time seeing regular print. Offer them routinely to seniors.
- Start a brochure for the library on special services the library offers.
- Walk through the library and identify areas that could use better lighting.
- If there is no seating near natural light, move furniture around to take advantage of it.

Planning and Collaboration

- Display flyers or posters for the Wisconsin Regional Library for the Blind and Physically Handicapped and the *Newsline for the Blind* near the large-print books.
- Request a demo machine and recorded book from the Regional Library for the Blind and Physically Handicapped and offer to demonstrate it for patrons who are interested in the service.
- Make a list or create a brochure of all the materials and services the library offers that may be of interest to people who are blind, have severe vision loss, or are beginning to lose their sight. Include music on tape or CDs, recorded books, large-print books and magazines, described videos, home delivery of materials, assistance with the copier, assistance with the catalog and locating books on the shelves, and handicapped parking stalls. Include any adaptive equipment the library owns. Take the list to local nursing homes, housing units for the elderly, senior citizen centers, and senior meal sites. Ask these agencies to include the list in their next newsletter.
- Invite the local Lions Club to put a donation container for used eye glasses in the library. Participate in Sight Night on Halloween, and collect used eye glasses for the Lions Club.

Staff Training

- If patrons with a visual impairment ask for assistance, accompany them to the appropriate area and describe what is being done and the materials offered. Try to be as descriptive as possible.

Collections and Services

- Weed the large-print collection to help make it look attractive.
- Offer to enlarge text on a copier for people who have trouble seeing small print in reference or phone books.
- Explore the existing special needs options most computers have that enlarge text and allow changes in background and foreground colors; investigate special key arrangements that facilitate certain keyboard functions.
- Visit some of the state and national Web sites that serve people who are blind or who have severe vision disabilities.

MARKETING

- Plan displays for National Glaucoma Awareness Month and Low Vision Awareness Month (www.preventblindness.org), both in January, Save Your Vision Week (www.aoanet.org) in March, Vision Research Month (www.preventblindness.org) and Helen Keller Deaf-Blind Awareness Week (www.helenkeller.org) in June, Cataract Awareness Month (www.eyenet.org) in August, and Diabetic Eye Disease Month (www.preventblindness.org) in November.

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